Control Threat and Means of Payment: Evidence from Canadian Mergers and Acquisitions

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January 2009

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Abstract

This study examines the relationship between family control and the means of payment choice for 358 Canadian mergers and acquisitions (M&A) undertaken during the period 1998-2004. We consider the interrelationships between control and risk reduction motivations and the percentage of cash offered by the bidder to finance the deal. Canada offers an interesting setting in which to examine the role of large family blockholders in financing choice given the high level of ownership concentration and governance mechanisms similar to those found in other English-origin countries. Stock payments can dilute the family's blockholding.

The results show a positive relationship between the family ultimate control stake and the percentage of cash financing. In contrast, we document a negative relationship between family use of control enhancing mechanisms and the likelihood of cash financing. Consistent with prior M&A research, we also find a positive relation between the bidder's leverage capacity (as measured by the level of fixed assets) and the use of cash as a medium of exchange. Further, acquiring firms with good investment opportunities are more likely to choose equity as a payment method. In agreement with the information asymmetry hypothesis, our results show a negative association between the relative size of the target and the percentage of cash financing. Finally, bidders acquiring unlisted targets and bidders involved in cross-border transactions are more likely to offer cash.

JEL Classification: G32, G34

Key words**:** Mergers and Acquisitions; Method of payment; Ownership Structure; Corporate Governance

1. INTRODUCTION

Recent empirical financial research shows that family control is widely prevalent in publicly listed companies around the world (Faccio and Lang, 2002; Cronqvist and Nilsson, 2003; Anderson and Reeb, 2003a; Maury, 2006; Villalonga and Amit, 2006). Many large firms around the world are controlled and managed by the founder and/or his family who frequently maintain control over the firm through control enhancing mechanisms such as dual class shares and stock pyramids. For instance, Faccio and Lang (2002) report that the control of a large majority of companies in Western Europe is held by the founders and their families. Anderson and Reeb (2003a), as well as Holderness (2007), document significant corporate ownership concentration among US publicly listed firms. While prior academic research (Anderson and Reeb, 2003a; Villalonga and Amit, 2006; Barontini and Caprio, 2006; Maury, 2006) examines the effect of family ownership, control and management on firm performance and valuation, little is known about the financing decisions made by family firms.

The purpose of this study is to investigate the role of family blockholders in the choice of means of payment in Canadian M&A. Recent papers (Anderson and Reeb, 2003b; Anderson, Mansi and Reeb, 2003; Ellul, 2008; King and Santor, 2008) have examined the impact of family control on the firm's capital structure. These papers consider two competing hypotheses to explain the association between family control and firm leverage. First, the risk-reduction motivation hypothesis (Ellul, 2008) suggests that, given the significant amount of family wealth invested in the firm and the undiversified nature of their portfolios, family controlling shareholders will be reluctant to use debt as a

financing medium because high leverage increases a firm's risk and the likelihood of bankruptcy. In contrast, the control motivation hypothesis (Ellul, 2008) predicts that family blockholders are more likely to use debt rather than equity as a financing medium to avoid diluting their voting power over the firm as well as the private benefits associated with it. However, Anderson, Mansi and Reeb (2003), Ellul (2008) and King and Santor (2008) obtain mixed results on the relationship between family ownership and debt financing.

Our paper looks at the role of family blockholders in the payment medium choice in mergers and acquisitions. Since cash financing in M&A is usually obtained through the issuance of new debt (Faccio and Masulis, 2005), we consider the interactions between risk reduction and control motivations and the proportion of cash used in the financing of major corporate investments. Using a sample of 358 acquisitions undertaken by Canadian acquiring firms during the period 1998-2004, we provide evidence of a positive relationship between the family ultimate control stake and the percentage of cash payment. However, we find a negative relation between the family excess control over ownership rights and the cash percentage. Our findings confirm the importance of control considerations as a determinant of the financing choice in M&A.

Consistent with prior M&A research, our results show also a positive relation between the acquirer's debt capacity (as measured by the level of fixed assets) and the use of cash as a medium of exchange. Further, acquiring firms with good investment opportunities are more likely to choose equity as a payment method. Finally, bidders acquiring non

listed targets and bidders involved in cross-border transactions are more likely to offer cash.

This paper contributes to the extent literature in several ways. First, family blockholders are a unique class of large shareholders with high control motivations, long term presence with active involvement in the management of the firm (Anderson and Reeb, 2003). Given that the financing choice (stock issuance or cash obtained through additional borrowing) impacts a bidder's ownership structure and may threaten the family blockholder's voting power and the private benefits of control associated with it, our study contributes to the understanding of the financing decisions of family firms and extends the conclusion of recent papers on the relationship between family ownership and capital structure decisions (Anderson et al., 2003; King and Santor, 2008; Ellul, 2008). We also add to prior M&A research (Amihud et al., 1990; Martin, 1996; Gregory, 2000; Faccio and Masulis, 2005) by considering the joint relationship between control considerations, financial condition, growth opportunities, information asymmetry and the financing choice in corporate acquisitions.

Second, Canada offers an interesting research setting to examine this issue for several reasons. Most studies have been conducted in the US and the UK which are characterized by ownership dispersion and where most firms respect the 'one share-one vote' rule.[1] Recent studies by La Porta et al. (1999), Claessens et al. (2000), Faccio and Lang (2002)

[1] Faccio and Masulis (2005) is the first study to examine the role of European controlling shareholders (UK and Continental Europe) in the choice of the payment method in M&A. Recently, Martynova and Renneboog (2008) further examine what determines the financing decision in European corporate takeovers.

and Dyck and Zingales (2004) suggest that these types of ownership structures are generally not the norm. Most of Continental Europe and Asia exhibit greater ownership concentration in the hands of individuals, families, governments, or industrial groups. The main agency problem in this setting is not the classic manager-shareholders conflict but the potential risk of expropriation by the dominant or controlling shareholder at the expense of minority shareholders. Corporate ownership in Canada, with its high level of ownership concentration obtained through mechanisms that separate voting and cash flow rights using dual class shares or pyramidal structures, differs from its Anglo-Saxon counterparts (Morck et al., 2000; Ben-Amar and André, 2006; Yen and André, 2007; Bozec and Laurin, 2008; King and Santor, 2008).[2] Nevertheless, Canada retains the market characteristics, typical corporate governance mechanisms and minority shareholder protection found in most English origin countries.

The remainder of this paper is organised as follows. The following section presents the related literature. Section 3 presents the research methodology. The fourth section presents and discusses the study's results and the last section offers a brief summary and suggestions for future research.

2. RELATED LITERATURE

This paper is related to two research streams. The first looks at the relationship between family control and capital structure decisions while the second investigates the effect of corporate control considerations on the choice of the medium of payment in M&A.

[2] See also Daniels and Iacobucci (2000) and Daniels and Halpern (1996) with respect to the ownership concentration issues in Canada.

Family Control and Capital Structure

Previous theoretical studies in corporate finance (Stulz, 1988; Harris and Raviv, 1988) have examined the link between control considerations and firm's capital structure (proportion of equity and debt in firm financing). Stulz (1988) argues that managers may have investment financing preferences related to their desire to maintain control over the firm. Given that the issuance of stock dilutes managers' controlling position, they may prefer to increase debt level or to use internal funds to finance investment projects in order to maintain their voting power over the firm and to enjoy the private benefits associated with it[3]. However, prior research provides mixed evidence on the association between managerial ownership and debt levels. Friend and Lang (1988) and Jensen et al. (1992) find a negative association between insider ownership and debt level while Kim and Sorensen (1986) report that concentrated managerial ownership is positively associated with leverage ratios. Finally, Brailsford et al. (2002) document a non linear relation between managerial equity ownership and debt level.

Anderson and Reeb (2003a) suggest that family blockholders may be considered as a unique class of large shareholders with high control motivations, long-term presence and active involvement in the management of their firms. Given these specificities, Ellul (2008) argues that controlling shareholders in family firms face a trade-off between two competing motivations to decide the optimal mix between equity and debt in the firm's capital structure: control and risk reduction motivations.

[3] Barclay and Holderness (1989) as well as Dyck and Zingales (2004) discuss the private benefits associated with the control of public firms.

On the one hand, given their significant ownership in the firm, family blockholders enjoy private benefits from the control of the firm particularly when they use control enhancing mechanisms such as dual class shares and stock pyramids to maintain control over the firm with a small fraction of equity ownership (Bebchuck et al., 2000). The example of such private benefits may be the ability to appoint family members to executive positions in the firm rather than to hire more qualified professional managers (Perez-Gonzalez 2006). Further, controlling shareholders may use related party transaction and investment decisions to maximize their personal interests at the expense of minority shareholders (Bebchuck et al., 2000).

Given the importance of these private benefits of control, family blockholders with high control motivations may have incentives to use debt rather than equity as a medium of financing to maintain their voting power over the firm and enjoy all the valuable control benefits associated with it (Ellul, 2008). Furthermore, Anderson et al. (2003) suggest that, compared to non family firms, founding family firms face less severe agency conflicts between shareholders and debt holders (they value firm survival over strict adherence to value maximisation) which results in a lower cost of debt financing for family firms.

On the other hand, founding families generally hold undiversified portfolios given that they invest a large proportion of their wealth in the family firm (Anderson and Reeb, 2003a). In addition, founders and their heirs often hold executive positions within the family firms and therefore their human capital is closely tied to the family firm

(Anderson and Reeb, 2003a). Given the undiversified nature of their portfolio and their human capital, Ellul (2008) suggests that family blockholders may be reluctant to use debt as a financing medium to avoid increasing the firm's risk and the likelihood of the firm bankruptcy.

Empirical tests provide mixed evidence on the relationship between family control and debt financing. Anderson and Reeb (2003) find that family firms use similar level of debt financing than non family firms even though Anderson et al. (2003) show that family firms experience a lower cost of debt than non family firms. King and Santor (2008) show that Canadian family firms with a single share class have higher debt-to-assets ratios than widely held firms whereas family firms with a dual class equity structure exhibit similar debt ratios than widely held firms.

Finally, Ellul (2008) reports a non linear relationship between family ownership and leverage. At low level of control, Ellul (2008) finds that family firms have higher debt ratios than non family firms. However, when the family control stake is high enough to ensure their control over the firm, He documents a negative association between family ownership and debt financing. The results of Ellul (2008) show also a negative association between family use of control-enhancing mechanisms and financial leverage.

Ownership Structure and Means of Payment Choice in M&A

Previous M&A research has examined the relationship between corporate control considerations and the medium of exchange in corporate acquisitions. Based on Stulz

(1988) theoretical arguments, M&A researchers (Amihud et al., 1990; Martin, 1996; Yook, 1999) explored the issue whether entrenched managers would prefer to increase debt level or to use internal funds rather than stock as a payment currency to finance M&A in order to maintain their controlling power over the firm and the private benefits associated with it.

Amihud et al. (1990) investigate the relation between managerial ownership and the financing choice in M&A. They find that inside ownership is negatively related to the likelihood of stock financing. Yook et al. (1999) have also confirm a negative relation between managerial shareholding and stock financing in the United States.

Martin (1996) considers, however, a nonlinear relationship between managerial ownership and the likelihood of stock financing in M&A. He argues that managers may not be concerned by the dilution of their control position at very low and very high levels of ownership. However, over a middle range of ownership, managers may lose control of the corporation by the issuance of stock. Looking to a sample of U.S M&A over the period 1978-1988, Martin (1996) finds a significant negative relation between stock financing and inside ownership over the intermediate ownership range (between 5 and 25%). Ghosh and Ruland (1998) report similar results to Martin (1996).

Faccio and Masulis (2005) are the first authors to examine corporate control issues faced by controlling shareholders in European M&A over the period 1997-2000. Similarly to Martin (1996), they test for a nonlinear relationship between the acquirer's largest

shareholder's ultimate voting rights and the proportion of cash used to finance the deal. In a sample of UK and Irish acquirers, their results show a nonlinear relationship between the largest shareholder's ultimate control and the proportion of cash used to finance the deal. However, they document a positive association between ownership concentration and cash financing for Continental European bidders. They interpret these results as consistent with the argument that controlling shareholders in Continental Europe may be reluctant to issue stock to finance M&A deals so as not to lose control. Martynova and Renneboog (2008) also find evidence that choice of financing is determined by strategic considerations. In a similar fashion to these papers, we examine the corporate control considerations in Canadian M&A. Given ownership concentration in Canada (Morck et al., 2000; Ben-Amar and André, 2006; Bozec and Laurin, 2008) and the prevalence of founding family firms, we examine the interactions between the risk-reduction and control motivations and the means of payment in M&A.

3. DATA AND METHODOLOGY

3.1 Sample Selection

We obtain our data set of Canadian M&A from the Thomson Financial Securities Data's SDC Platinum™ *Worldwide Mergers & Acquisitions Database*. Our sample meets the following criteria: 1) observations are for 1998-2004; 2) acquiring firms are listed Canadian companies; 3) deals are completed and consist of mergers, exchange offers, or acquisitions of majority interest; 4) companies with several M&A during the period are included; 5) only transactions greater than US$10 million are included; 6) banks and insurance companies are excluded; 7) companies have market data and financial

statements available in the Research Insight Compustat or StockGuide database.

Our final sample includes 358 events (244 companies). Table 1 reports the annual numbers, aggregate values and mean values of the acquisitions completed. Our sample comprises 293 acquisitions with a total market value of over $147.7 billion Canadian. Acquiring firms paid, on average, $412.6 million for the targets.

«Insert Table 1 about here»

3.2 Dependent Variable (PERCENT CASH)

Following Faccio and Masulis (2005), we use the proportion of cash and liabilities used to finance the transaction as a dependent variable. This is a censored dependent variable which ranges by definition from 0 to 1. Therefore, we adopt a Tobit specification to explain the percent of cash used in Canadian M&A[4]. Tobit estimation allows eliminating biases associated with OLS regressions in the presence of a censored dependent variable (Amemiya, 1984; Greene, 2003).

3.3 Independent Variables

Family Control (FAMCONT)

We use the same methodology as La Porta et al. (1999), Faccio and Lang (2002) and Claessens et al. (2002) to measure the ultimate voting and ownership rights held by the bidder's largest shareholder. Following prior research (Faccio and Lang, 2002; Maury, 2006; Barontini and Caprio, 2006), we define a firm as family controlled if the largest

ultimate controlling shareholder who holds at least 10% of the voting rights is an individual, a family or an unlisted company on any stock exchange.[5]

As in Faccio and Lang (2002), ultimate voting rights (FAMCONT) are measured as the weakest link in the control chain while ultimate ownership (FAMOWN) is measured as the fraction of equity capital held by the family blockholder. If control rights are valuable, family blockholders are less likely to use stock as a payment currency so as to avoid any dilution effect (Faccio and Masulis, 2005). We also include FAMCONT2 (family control squared) and FAMCONT3 (family control cubed) to potentially capture the fact that the impact of dilution on the largest shareholder may not be the same at higher and lower levels of concentration. Information on the level of voting and participation rights is obtained from the proxy circulars available on the web site SEDAR (all documents filed by Canadian listed companies are available on this site since 1997). Stock market regulation in Canada requires the disclosure of shareholders holding more than 10% of any class of shares and the ownership levels of the board members.

Family Wedge *(FAMEXCESS)*

We also measure the family blockholder's excess control (FAMEXCESS) as the difference between family control (voting rights) and ownership (cash-flow rights). Higher levels of family wedge suggest that family blockholders maintain control over voting rights with a small fraction of equity. This information is also gathered from proxy circulars.

[4] 19.27% of observations have zero values (pure stock deals).

***Family Management** (FAMCEO)*

Family management (FAMCEO) is a dummy variable used to measure family involvement in the firm's management. FAMCEO takes the value of 1 if a family member (founder or his descendants) holds the CEO position in the family firm and zero otherwise. This information is gathered from proxy circulars and company websites.

***Non Family Blockholders** (NONFAMBLK)*

Prior research (Brailsford et al., 2002) shows that external blockholders have a significant impact on the firm's capital structure. Therefore, besides to family blockholders, we measure also voting rights held by non-family blockholders which include financial and corporate block holders. Financial block holders include institutional investors, mutual funds managers and pension funds (i.e, *Teachers* and *Caisse de depot et placement du Quebec*). A bidder is controlled by a corporate block holder when its ultimate largest shareholder at the 10% cut-off is a widely held corporation. Finally, we consider companies that have no large shareholder at the 10% cut-off are considered to be widely held.

3.4 Control Variables

Prior research has identified several factors explaining the means of payment in M&A. These factors include bidder's financial condition, investment opportunities, information

[5] We have also tested the sensitivity of our results to different cut-off levels (20%). These results are qualitatively similar to those reported in this paper.

asymmetry and risk sharing between the acquirer and the target as well as other bidder and target characteristics.

Financial Constraints

Prior research (Martin, 1996; Gregory, 2000; Chang and Mais, 2000; Faccio and Masulis, 2005) considers the relation between the bidder's financial condition and the medium of exchange in M&A. Bidders having large amounts of internal funds (CASH AVAILABILITY) are more likely to use cash to finance the deal. Martin (1996) and Gregory (2000) document a negative relation between cash availability and the likelihood of stock payment.

Faccio and Masulis (2005) argue that the borrowing capacity of the bidder is related to its leverage ratio (LEVERAGE) and the existence of collateral (COLLATERAL). Highly leveraged bidders may have difficulties raising new debt and using the proceeds to finance corporate acquisitions. Thus, leveraged bidders should be more likely to use stock as a means of payment. Moreover, bidders having higher collateral (tangible assets) should have a higher ability to raise additional debt to finance M&A deals (Faccio and Masulis, 2005). They provide evidence of a positive relation between the existence of collateral and the proportion of cash used to finance M&A. They also find a negative relation between the acquirer's leverage ratio and the amount of cash payment in European M&A deals. However, other studies (Martin, 1996; Chang and Mais, 2000) do not report a significant relationship between leverage and the likelihood of stock payment.

Consistent with prior research (Chang and Mais, 2000), we use CASH AVAILABILITY (ratio of cash plus marketable securities to the deal value), COLLATERAL (ratio of fixed assets to total assets at the end of the year before the deal), and LEVERAGE (ratio of long-term debt to total assets at the end of the year before the deal) to capture the financial constraints.

Growth Opportunities *(MTOB RATIO)*

Prior research (Martin, 1996; Chang and Mais, 2000; Zhang, 2001; Faccio and Masulis, 2005) documents a positive relation between an acquirer's investment opportunities and the likelihood of stock payment. Therefore, the bidder's growth opportunities are measured through the market-to-book value of assets (ratio of the market value of equity plus book value of debt over total assets (book-value) prior to deal announcement).

Cross-Listing in the US *(CROSSLISTED)*

Burns et al. (2007) and Tolmunen and Torstila (2005) examine the relationship between US cross-listing and the method of payment choice in M&A. Burns et al. (2007) argue that foreign firms cross-list in the US to gain the ability to offer equity in the acquisition of US publicly traded targets. According to the home bias hypothesis (French and Poterba, 1991; Karolyi and Stulz, 2001), US investors may be reluctant to accept illiquid shares of a foreign firm as an acquisition currency. The legal bonding hypothesis (Coffee, 1999; Reese and Weisbach, 2002; Doidge et al., 2004) suggests that cross-listed firms in the US agree to submit to tougher governance rules, to increase information disclosure,

and commit to extract fewer private benefits from their minority shareholders. In this case, this may facilitate the acceptance of cross-listed shares as a medium of exchange by US takeover targets shareholders.

Burns et al. (2007) examine a sample of cross-border takeovers that took place in the US between 1984 and 2000 and find that cross-listed firms using equity as an exchange medium pay lower premiums for US targets than non cross-listed firms. However, in contrast with the legal bonding hypothesis predictions, Burns et al. (2007) document that cross-listed firms use equity as an acquisition currency less often than US bidders do. Tolmunen and Torstila (2005) have also investigated the payment choice of European firms acquiring US targets. While cross-listed acquirers seem to be more active on the US market for corporate control, Tolmunen and Torstila (2005) did not find evidence that European cross-listed firms are any more likely than firms that are not cross-listed to use equity payments. The transaction size seems to be the most important factor to explain the use of equity as a mode of payment in transatlantic M&A.

We create a dummy variable that equals one when the bidder is listed on a US stock exchange and zero otherwise. This information has been collected from the TSX Review.

Target Firm Characteristics

Recent research in finance has also considered target firm characteristics as potential determinants of the choice of payment method in corporate acquisitions. These

characteristics include target's ownership structure, its size relative to the bidder (proxy for information asymmetry and risk sharing) and nationality (cross-border transactions).

-*Target Size Relative to the Bidder (RELATIVE SIZE)*

Hansen (1987) predicts that the information asymmetry between the bidder and the target should be an increasing function of the target size. Thus, bidders acquiring large targets should be more likely to use stock payment to share the risk of overpayment with the target. Consistent with the risk sharing hypothesis, Faccio and Masulis (2005) document a negative relation between the deal's relative size and the percent of cash payment in European M&A. Burns et al. (2006) and Tolmunen and Torstila (2005) find that the acquirers of large targets are more likely to use equity as a means of merger payment.

We use the ratio of the deal value to the deal plus the acquirer's market capitalization prior to the transaction as a measure of information asymmetry and risk-sharing between the acquiring firm and the target.

-*Target Ownership Structure (NONLISTED TARGET)*

Faccio and Masulis (2005) suggest that shareholders of unlisted targets are less likely to accept stock payment since the sale of target assets is often due to liquidity or restructuring and thus these shareholders are not interested in an equity stake in the bidder. Moreover, the ownership of an unlisted private target (or an unlisted subsidiary of a corporation) is generally highly concentrated. According to Faccio and Masulis (2005), the bidder's largest shareholder may be reluctant to offer equity for the acquisition of an

unlisted target due to the risk of the creation of a new blockholder in the acquiring firm which threatens his voting power. Faccio and Masulis (2005) find a positive association between the acquisition of unlisted targets and subsidiaries and the percent of cash used in European M&A. We use a dummy variable NONLISTED TARGET to capture this effect. This indicator variable takes the value of one if the target firm is non listed (private and non listed subsidiary) and zero otherwise.

-Target Nationality (CROSS-BORDER)

Pure stock deals are very rare in cross border transactions. First, it is usually impossible to merge firms from two different legal regimes. Secondly, even in tender processes, local shareholders are generally reluctant to accept shares from another jurisdiction with which they are generally less familiar and which also increases transaction costs. Faccio and Masulis (2005) document a positive relationship between cross-border transactions and the proportion of cash payment in European M&A. We create a dummy variable CROSS-BORDER that equals one if the target nation is not Canada and zero otherwise. This information is provided by the SDC database.

Time Period (PERIOD) and Industry dummies

Given that our sample covers the period 1998-2004, we create a yearly dummy variable. We also include industry dummies based on 2-digit SIC codes. All variable definitions are presented in the Appendix.

4. RESULTS

4.1 Descriptive Statistics

Table 2 presents descriptive statistics on the sample firms. Our sample includes 161 (45%) family firms and 197 (55%) non family firms which include 119 widely held firms, 48 firms controlled by a financial institution and 30 firms controlled by a corporate block-holder (widely held corporation). As shown in Table 2, the mean percentage of cash payment for family firms (75.9%) is significantly higher than the average cash payment (64.9%) offered by non family firms. These univariate results support the control motivation hypothesis (Ellul, 2008) and suggest that family blockholders are more likely to offer cash than equity as a payment in M&A to avoid diluting their voting power over the firm.

The average (median) control stake of the family blockholder is 44.30% (41.10%) whereas the average (median) family ownership stake is 26.60% (19.20%). The average family excess control over participation rights is 18.1%. These figures confirm corporate ownership concentration in Canada as reported in prior Canadian studies (Morck et al., 2000; Bozec and Laurin, 2008; King and Santor, 2008). For instance, Bozec and Laurin (2008) report that at the 10% cut-off, 66% of the firms in their sample are family controlled firms. The ownership structure of the acquiring firms in our sample is similar to the European context reported in Faccio and Masulis (2005). They document that the acquiring firm's largest shareholder controls, on average, 22% of the voting rights for a large sample of European M&A.

The results of Table 2 show also that, with the exception of collateral and cross-listing status variables, there are no statistically significant differences between family and non-family firms with respect to the bidder's financial characteristics, deal and target characteristics.

Insert Table 2 about here

4.2 Multivariate Results

Family Ownership and the Percentage of Cash Payment in M&A

Table 3 presents the results of our Tobit regressions explaining the percent of cash in Canadian acquisitions. In the first regression, we consider a linear relation between family ultimate control rights and the percent of cash used to finance the deal. In the second and third regression of Table 3, we include FAMCONT2 (squared value) and FAMCONT3 (cubed value) to test for a nonlinear relationship between the two variables. As suggested by Faccio and Masulis (2005), large family blockholders may not be concerned about the dilution of their control position at very low and very high levels of control. However, over a middle range of ownership, larger shareholders may lose power through the issuance of new equity as a payment mode in M&A.

As shown in regression 1 of Table 3, we find a positive and significant relation between the family control level and the cash percentage. However, when we test for a nonlinear relationship (regression 2) between these two variables, the coefficient on FAMCONT is

positive and statistically significant while the coefficient of FAMCONT2 (Squared) is not significant. Finally, the results of regression 3 do not document a non linear association between family control level and the likelihood of cash payment. Our results seem to imply that as control increases, the family blockholder becomes more concerned about the dilution of his position through the issuance of stock.

The positive linear relation between the family control stake and the likelihood of cash payment supports the results of prior US studies (Amihud et al., 1990; Yook et al., 1999; Chang and Mais, 2000) which have documented a positive relation between managerial ownership and the use of cash as a medium of exchange in M&A. For a sample of continental European bidders, Faccio and Masulis (2005) document also a linear positive relation between the largest shareholder's control stake and the cash percentage in M&A. Given that corporate ownership concentration in Canada compares to the situation in Continental Europe, our results suggest that large shareholders (families) in countries with a highly concentrated ownership value control independent of the level of their control stake in the firm.

Our results are also consistent with the findings of King and Santor (2008) who have documented a positive association between family control and debt-to-assets ratios for a sample of Canadian firms. Our results seem to suggest that family firms may exhibit higher leverage ratios because they use more frequently debt as a payment currency in M&A than widely held firms. However, our findings differ from those of Ellul (2008) who reports that family firms use less debt when the family control stake is high enough

to ensure full control over the firm. Our results don not document a non linear association between family control and the cash payment in M&A.

Consistent with prior M&A research, the coefficients of several control variables are significant. First, and in agreement with the investment opportunities hypothesis, we document a negative relationship between the acquirer's market-to-book ratio and the likelihood of cash payment. These results are consistent with Martin (1996), Chang and Mais (2000) and Faccio and Masulis (2005). These findings support also the argument that bidders are more likely to use stock as a payment currency when the stock price is overvalued relative to its book value rather than when it is under-valued by the stock market (Rhodes-Kropf and Viswanathan, 2004 and (Shleifer & Vishny 2003).

Looking to bidders' financial condition measures, we find a positive relationship between a bidder's level of fixed assets (COLLATERAL) and the likelihood of cash payment. These results are in agreement with Faccio and Masulis (2005) and imply that bidders having a large amount of fixed assets may enjoy a higher debt capacity and are more able to raise additional debt to finance their acquisitions. The amount of cash and marketable securities as well as the bidder's leverage does not significantly affect the cash percentage used in financing for the deal.

Table 3 also shows that the payment method is related to target characteristics. Consistent with the information asymmetry hypothesis (Hansen, 1987), we document a negative relation between the target's size relative to that of the bidder and the percent of cash

payment. These results are consistent with the empirical results of Martin (1996) and Faccio and Masulis (2005) and suggest that bidders acquiring large targets are more likely to use stock payment to share the risk of overpayment with target shareholders.

As expected, the target's listing status has a significant impact on the exchange medium in mergers and acquisitions. We find that bidders acquiring non listed targets are more likely to use cash as a medium of exchange. These results are consistent with Faccio and Masulis (2005) and imply that bidders may be reluctant to use stock in these acquisitions in order to avoid the creation of a new blockholder which may threaten their controlling position and the private benefits associated with it. Finally, and in agreement with Faccio and Masulis (2005), we find a positive association between cross-border transactions and the choice of cash as a medium of exchange. These results confirm that target shareholders in cross-border transactions may be reluctant to accept shares of companies from another jurisdiction.

Insert Table 3 about here

Family Excess Control, Management and the Percentage of Cash Payment in M&A

Ellul (2008) argues that control enhancing mechanisms, such as dual class shares and stock pyramids, may be used by controlling shareholders as a substitute device to capital structure in order to maintain control over the family firm. Control enhancing devices allow a controlling shareholder to obtain control over the voting rights with a small fraction of capital equity and therefore he may have fewer incentives to use cash and/or

debt financing as an additional way to assure control. In a similar fashion to Ellul (2008), we also examine the impact of control enhancing devices on the payment choice in M&A. We expect that a family blockholder who maintains control over the firm through control enhancing mechanisms may not be reluctant to issue stock to finance the firm's investment projects because their controlling position would not be threatened. This propensity to use stock, rather than cash or liabilities, may be even greater when the family blockholder excess control over his ownership rights is high. In such case, the issuance of new stock to finance the deal will not threaten the family's controlling position over the firm.

Table 4 reports the results of the Tobit estimation looking at the relation between family control, family wedge (difference between family blockholder's voting and cash-flow rights) and the medium of payment in Canadian M&A. In regression 1 of Table 4, we consider together the effect of family control (FAMCONT) and wedge (FAMEXCESS) on the cash percentage. As shown in Table 4, the coefficient of the family control variable is positive and significant as previously reported in Table 3. In contrast, the coefficient of the family excess control variable is negative and significant. These results suggest that a family blockholder who can maintain control over voting rights through dual class shares or stock pyramids is more likely to issue stock to finance the deal rather than to use cash or debt financing. These results confirm the findings of Ellul (2008) that family firms may use control enhancing mechanisms as a substitute to capital structure decisions.

Ellul (2008) examines also whether the founding family impact on debt financing results from its control stake or its involvement in the management of the family firm. He argues that a family could more easily affect capital structure decisions when one family member (the founder or his descendents) is actively involved in management as a CEO or board chair. Ellul (2008) finds that family involvement in management increases debt financing and that the effect of family management on leverage is stronger than the effect of ownership.

Regression 2 of Table 4 presents the results of the impact of family management on the payment choice in M&A. We consider the impact of family involvement in management, i.e., the CEO is the founder or a descendent, in addition to the ownership stake and the use of control enhancing devices. As shown in Table 4, we do not find any significant relationship between family management and the percentage of cash used to finance the deal. In contrast, the coefficient of family ownership remains positive and significant while the coefficient on the family wedge is negative and significant as reported in regression 1 of Table 4. These results imply that family impact on the merger payment decision results mainly from its control stake and the use of control enhancing devices and not from its involvement in management.

Insert Table 4 about here

Family Control, Payment Method and Stock Market Reaction at the Announcement Date

We finally examine the stock market reaction to the method of payment by family firms. Prior research (Travlos, 1987; Blackburn et al., 1997) indicates that the cumulative abnormal returns (CAR) obtained by target and acquiring firm shareholders around the announcement date are related to the method of payment. Target shareholders enjoy higher abnormal returns in cash than in stock financed deals (Huang and Walking, 1987) whereas acquiring firm shareholders obtain significant negative returns in stock offers (Travlos, 1987; Blackburn et al., 1997).

Table 5 presents the cumulative abnormal returns (CAR) earned by acquiring firms' shareholders in the three-day window (-1, 0, +1) around the announcement date by control type (family and non family firms) and payment method (cash and stock and mixed deals). The results of Table 5 show that family firms enjoy significant positive abnormal returns in all cash and stock financed deals. In contrast, non family firms experience significant positive excess returns only when the deal is entirely financed through cash.

The results of Table 5 show also that family firms experience higher returns than non family firms in stock financed deals. While there is no significant differences between the returns earned by family and non family firms in all cash deals, family firms earn significantly higher returns than non family firms when the transaction is partially or fully financed with stock. These results confirm that the consequences of the medium of

payment choices vary according to the acquiring corporate ownership (Blackburn et al., 1997).

Insert Table 5 about here

Additional Analysis

We used also a spline function variable approach to further test the existence of a non linear relationship between the family ultimate control stake and the proportion of cash payment. Following Faccio and Masulis (2005), we set cut-off points at the 20% and 60% control levels and construct our three variables: CONT20, CONT20-60 and CONT60[6]. We did not find any nonlinear relationship between the family blockholders control level and the amount of cash involved in payment for the deal.

5. CONCLUSION

This study examines the role of family blockholders in the choice of the payment method in Canadian mergers and acquisitions. Given the high level of corporate ownership concentration by families for an English-origin country and the widespread use of dual class voting shares and pyramidal structures, Canada offers an interesting setting to examine the role of controlling shareholders in the choice of payment method in M&A.

Our results show a positive relationship between the family control stake and the percent of cash payment. These results, similar to those of Faccio and Masulis (2005) for Continental European deals, confirm the importance of ownership structure in

understanding the choice of payment method. We also find a negative association between the use of control-enhancing devices and the percentage of cash payment. These results contribute to the literature looking to the role of large shareholders in the choice of investments financing method (Amihud et al., 1990; Martin, 1996; Faccio and Masulis, 2005) as well to the recent literature on capital structure decisions of family firms.

We also find that the choice is related to other bidders' and targets' attributes. From the bidders' perspective, we document a negative relationship between growth opportunities, cross-listing in the US and the percent of cash payment. Our results show also that bidders holding large amounts of fixed assets are more likely to use cash as a payment method in M&A. From the target perspective, we find a negative relationship between the target's size relative to the bidder and the likelihood of cash payment. We provide evidence that the target's listing status as well as acquisition of foreign targets has a significant impact on the payment choice in M&A. These results contribute to the literature on the payment method choice in M&A.

[6] We tested for different cut-off points and our results remain unchanged.

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APPENDIX
Variable Definition

Variable Name	Description and Source
CASH	Dummy variable that equals one if the deal is financed only through cash (and liabilities) and zero otherwise (stock only and mixed payments). (Source: SDC)
CASH AVAILABILITY	Ratio of cash plus marketable securities prior to the acquisition to the deal value (Source : Compustat, Stock Guide; SDC)
COLLATERAL	Ratio of fixed assets (property, plant and equipment) to total assets at the end of the year before the acquisition (Source: Compustat and Stock Guide)
CORPORATE	Dummy variable that equals one if the largest shareholder is a widely held corporation (Source: Proxy circulars).
CROSSLISTED	Dummy variable that equals one if the bidder is listed on a US stock exchange (NYSE, NASDAQ, AMERICAN) and zero otherwise. (Source: TSX Review)
CROSS-BORDER	Dummy variable that equals one if the target nation is not Canada and zero otherwise. (Source: SDC)
FAMILY	Dummy variable that equals one if the acquirer's largest shareholder is a family (individual) and zero otherwise. A large shareholder is an individual or an entity with an ultimate control stake of 10% or more (Source: Proxy circulars from SEDAR Website).
FAMCONT	Ultimate voting rights held by the family (Source: proxy circulars from Sedar website)
FAMOWN	Ultimate cash flow rights held by the family (Source: proxy circulars from Sedar Website)
FAMEXCESS	Family excess control; wedge between family control and ownership rights (source: proxy circulars from Sedar website).
FAMCEO	Dummy variable that equals one if the acquirer's CEO is a member of the controlling family and zero otherwise (source: proxy circulars from Sedar website).
INSTITUTIONAL	Dummy variable that equals one if the acquirer's largest shareholder is an institutional investor and zero otherwise (Source: Proxy circulars)
LEVERAGE	Ratio of long term debt to total assets at the end of the year before the acquisition (Source : Compustat and Stock Guide)
MTOB RATIO	Ratio of the market value of equity plus book value of debt over total assets (book-value) prior to deal announcement. (Source: Compustat and StockGuide).
PERCENT CASH	Cash as a percentage of the total deal value. Cash includes cash payments and liabilities (Source: SDC). This variable varies between 0 and 1.
NONFAMBLK	Ultimate voting rights held by a non-family (institutional or corporate) large shareholder (Source: proxy circulars from Sedar Website)
NONLISTED TARGET	Dummy variable that equals one if the target is a stand-alone firm not listed on any stock exchange or an ulisted subsidiary of another firm and zero otherwise. (Source: SDC)
RELATIVE SIZE	Ratio of the deal value to the deal value plus the bidder's market capitalization at the end of the year before the acquisition (Source : SDC, Compustat and StockGuide).

Table 1

Number and Value of Transactions

Year	Number of Transactions	Average Value ($ CDN million)	Total Value ($ CDN million)
1998	69	561.3	38,726.7
1999	57	208.7	11,896.7
2000	88	482.5	42,461.6
2001	42	348.2	14,624.5
2002	37	231.2	8,553.7
2003	36	482.3	17,362.4
2004	29	486.1	14,096.2
Total	**358**	**412.6**	**147,721.7**

Table 2

Descriptive Statistics

Sample of 358 mergers and acquisitions by 244 Canadian acquiring non financial firms between 1998 and 2004 for completed transactions over US$ 10 million obtained from the SDC Thomson Financial database. The variable definitions are given in the appendix. Cash Only includes deals financed with cash and liabilities. Stock only includes deals financed with common and restricted voting shares. Mixed payment includes deals financed with cash and stock. ***,** and * denote significance of F-tests at the 1%, 5% and 10% levels respectively.

		Family Firms (N=161)			**Non-Family Firms (N=197)**			F- Stat
		Mean	Median	Stand Dev	Mean	Median	Stand Dev	
Cash Percentage		0.759	1.000	0.378	0.649	1.000	0.430	6.438 **
OWNERSHIP VARIABLES								
FAMCONT		0.444	0.411	0.264	0.000	0.000	0.000	
FAMOWN		0.262	0.192	0.207	0.000	0.000	0.000	
FAMEXCESS		0.181	0.000	0.241	0.000	0.000	0.000	
FAMCEO		0.534	1.000	0.500	0.000	0.000	0.000	
NONFAMBLK		0.014	0.000	0.050	0.115	0.000	0.183	
CONTROL VARIABLES								
MTOB RATIO		2.935	1.435	7.677	2.033	1.297	2.343	2.444
COLLATERAL		0.345	0.307	0.278	0.488	0.531	0.315	19.984 ***
CASH AVAILABILITY		0.785	0.204	1.595	1.136	0.192	2.892	1.920
LEVERAGE		0.182	0.180	0.151	0.208	0.197	0.163	2.395
CROSSLISTED		0.385	0.000	0.488	0.472	0.000	0.500	2.736 *
RELATIVE SIZE		0.267	0.160	0.351	0.289	0.167	0.384	0.312
NONLISTED TARGET		0.590	1.000	0.493	0.558	1.000	0.497	0.362
CROSS-BORDER		0.478	0.000	0.501	0.487	0.000	0.501	0.029

Table 3

Family Control and the Percent of Cash in Canadian M&A

This Table presents the results of Tobit regressions for a sample of 358 mergers and acquisitions by 244 Canadian acquiring non financial firms between 1998 and 2004. The sample includes 211 all cash , 69 all stock and 78 mixed financing transactions. Variable definitions are given in the appendix.The dependent variable is the the cash percentage to the total deal value. Tests are one-tailed whenever there are directional predictions ***,** and * denote significance of t-tests at the 1%, 5% and 10% levels respectively.

		Model 1		Model 2		Model 3	
Variables	Expected Sign	Coefficient	Stat-t	Coefficient	Stat-t	Coefficient	Stat-t
FAMCONT	+/-	1.574	4.07 ***	2.841	2.22 **	3.057	1.25
FAMCONT2 (Squared)	+/-			-1.622	-1.00	-2.694	-0.34
FAMCONT3 (cubed)	+/-					0.899	0.14
NONFAMBLK	+/-	0.269	0.42	0.360	0.540	0.417	0.63
MTOB RATIO	-	-0.046	-2.87 ***	-0.044	-2.67 ***	-0.043	-2.54 ***
COLLATERAL	+	1.655	3.89 ***	1.725	3.92 ***	1.632	3.84 ***
CASH AVAILABILITY	+	0.005	0.13	0.004	0.10	0.008	0.21
LEVERAGE	-	0.624	1.02	0.740	1.15	0.691	1.12
CROSSLISTED	-	-0.007	-0.04	-0.012	-0.06	0.019	0.10
RELATIVE SIZE	-	-0.369	-1.53*	-0.402	-1.58*	-0.390	-1.61*
NONLISTED TARGET	+	0.873	4.25 ***	0.900	4.19 ***	0.867	4.24 ***
CROSS-BORDER	+	0.521	2.64 ***	0.565	2.73 ***	0.538	2.72 ***
Intercept		-0.155	-0.35	-0.302	-0.63		
Year Dummies		Yes		Yes		Yes	
Industry Dummies		Yes		Yes		Yes	
Log-Likelihood		-302.28	***	-291.922	***	-301.735	***
No. observations		358		358		358	

Table 4

Family Excess Control and Management and the Percent of Cash in Canadian M&A

This Table presents the results of Tobit regressions for a sample of 358 mergers and acquisitions by 244 Canadian acquiring non financial firms between 1998 and 2004. The sample includes 211 all cash , 69 all stock and 78 mixed financing transactions. Variable definitions are given in the appendix.The dependent variable is the the cash percentage to the total deal value. Tests are one-tailed whenever there are directional predictions ***,** and * denote significance of t-tests at the 1%, 5% and 10% levels respectively.

		Model 1		Model 2	
Variables	Expected Sign	Coefficient	Stat-t	Coefficient	Stat-t
FAMCONT	+/-	2.459	3.84 ***	2.706	3.70 ***
FAMEXCESS	-	-1.628	-1.90 *	-1.800	-2.01 **
FAMCEO	+/-			-0.204	-0.79
NONFAMBLK	+/-	0.328	0.51	-0.159	-0.35
MTOB RATIO	-	-0.053	-3.19 ***	-0.053	-3.18 ***
COLLATERAL	+	1.564	3.68 ***	1.548	3.64 ***
CASH AVAILABILITY	+	0.006	0.15	0.001	0.03
LEVERAGE	-	0.600	0.98	0.597	0.97
CROSSLISTED	-	0.039	0.21	0.029	0.15
RELATIVE SIZE	-	-0.423	-1.73 **	-0.432	-1.77 **
NONLISTED TARGET	+	0.872	4.25 ***	0.876	4.27 ***
CROSS-BORDER	+	0.527	2.67 ***	0.520	2.64 ***
Intercept		-0.193	-0.43	-0.120	-0.26
Year Dummies		Yes		Yes	
Industry Dummies		Yes		Yes	
No. observations		358		358	
Log-Likelihood		-300.376	***	-300.058	***

Table 5
Family Control, Payment Method and Cumulative Abnormal Returns (CARs)

This Table presents the results of CAR mean comparisons for a sample of 358 mergers and acquisitions by 244 Canadian acquiring non financial firms between 1998 and 2004. The sample includes 211 all cash , 69 all stock and 78 mixed financing transactions. Announcement period abnormal returns are cumulated over (-1, +1) using the market model parameters estimated between -240 and -40 days Variable definitions are given in the appendix.. ***,** and * denote significance of t-tests at the 1%, 5% and 10% levels respectively.

Family Control	**Payment Method**		Differences (t-statistics)
	All cash	Stock + Mixed	
Family Firm N=161	(1) 0.019 *** (n=105)	(2) 0.020 * (n=56)	(1)– (2) 0.076
Non-Family Firm N= 197	(3) 0.0114 ** (n=106)	(4) -0.0079 (n=91)	(3) - (4) -2.192 **
Difference t-Statistics	(1) – (3) 0.312	(2) – (4) -2.152 **	